ISO-9001-2015 Certified

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TECHNICAL BULLETIN

EPOXICAST M27LV
ONE COMPONENT, CAVITY FILL, LIQUID ENCAPSULANT

EPOXICAST™ M27LV is a highly filled, low stress liquid encapsulant with very good moisture resistance. It is exceptionally fluid and has very long working life at room temperature. M27LV is a snap cure adhesive that will cure very quickly at elevated temperatures. The cured system has a low coefficient of thermal expansion, high glass transition temperature, and good dielectric properties.

EPOXICAST™ M27LV can be used for bare chip protection in a variety of advanced packages such as IC memory cards, chip carriers, hybrid circuits, chip-on-board, multi-chip modules, and pin grid & ball grid arrays.

TYPICAL HANDLING PROPERTIES:

Epoxicast	M27LV
Viscosity at 25°C, cp	5,000-7,000
Pot life (100 gram) at 25°C, hr	24
Shelf Life @ -40°C, months	12

Recommended Cure	**5 min/150°C**
Alternate Cure	**20 min/125°C**

TYPICAL CURED PROPERTIES:
(Tested @ 25°C unless otherwise indicated)

Color	Black
Specific Gravity	1.70
Hardness, Shore D	90
Linear Shrinkage (%)	0.25
Water Absorption (24 hr at RT), %	0.10
Glass Transition Temperature, (°C)	145
Service temperature range, °C	-55 to 220
Coefficient of Thermal Expansion, 10^{-6}/°C	
Below Tg	25
Above Tg	>120
Dielectric Constant (1 kHz)	3.6
Dissipation Factor (1 kHz)	0.003
Volume Resistivity, ohm-cm	2.0×10^{16}

INSTRUCTIONS FOR USE:

1. Frozen packages must be completely thawed before use.
2. Do not remove the cover of the syringe and let it thaw at room temperature for 5 to 20 minutes depend on quantity and size.
3. Wipe any condensed moisture from the container and open the cover.
4. Proceed with the potting or encapsulating application and cure as recommended.
5. Some difference in properties may occur with the alternate or other cure schedule.

AVAILABILITY:

Premixed and frozen - Packaged in 10cc and 30cc disposable syringes and ship in dry ice at -80°C.

FOR INDUSTRIAL USE ONLY:

Practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

WARNING!

Adequate ventilation of workplace and ovens is essential. These materials may cause injury to the skin following prolonged or repeated contact and dermatitis in susceptible individuals. In case of skin contact, wash thoroughly with soap and water. For eyes, flush immediately with plenty of water for at least 10 minutes and seek medical attention. Refer to Material Safety Data Sheet **(MSDS)** for additional health and safety information.

DISCLAIMER: All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.